APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,336	12/29/2000	Joshua L. Coates	SCAL.P0004	8407

23349	7590	01/02/2004	EXAMINER

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ART UNIT	PAPER NUMBER
2114	5

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/753,336	COATES ET AL.
	Examiner	Art Unit
	Dieu-Minh Le	2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 May 2001* .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other: .

Part III DETAILED ACTION

Specification

1.   Claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which
forms the basis for all obviousness rejections set forth in this
Office action:

(a) A patent may not be obtained though the invention is not
identically disclosed or described as set forth in section 102
of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the
subject matter as a whole would have been obvious at the time
the invention was made to a person having ordinary skill in the
art to which said subject matter pertains. Patentability shall
not be negatived by the manner in which the invention was made.

3.   This application currently names joint inventors. In
considering patentability of the claims under 35 U.S.C. 103(a),
the examiner presumes that the subject matter of the various
claims was commonly owned at the time any inventions covered
therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to

point out the inventor and invention dates of each claim that

was not commonly owned at the time a later invention was made in

order for the examiner to consider the applicability of 35

U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior

art under 35 U.S.C. 103(a).

4.   Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being

unpatentable Deitz et al. (US Patent 6,578,158 hereafter

referred to as Deitz) in view of Jones (US Patent 5,757,642).

As per claim 1:

    Deitz substantially teaches the invention. Deitz teaches:

    - a failover system [abstract, col. 1, lines 1-11].

comprising:

    - storage center for storing a plurality of files [fig. 1 &

    2, col. 3, lines 25-28];

    - local computer for utilizing at least one file stored at

    storage center [fig. 1 &2, col. 3, lines 25-28];

    - first local device (i.e., controllers) [col. 3, lines 5-

    7] coupled to local computer [fig. 1 and 2] for operating

    as active storage port [col. 3, lines 63-66 and col. 5,

    lines 37-41], active storage port for receiving file system

operation requests on file from local computer and for

transferring information for file system operation, local

computer and first local device being coupled through a

communication mechanism [fig. 1 & 2, col. 4, lines 60

through col. 5, line 17].

- second local device (i.e., controllers) [col. 3, lines 5-

7] coupled to local computer [fig. 1 and 2] for operating

as passive storage port [col. 3, lines 63-66 and col. 5,

lines 37-41], passive storage port for switching to active

storage port during failover condition [col. 3, lines 10-17

and col. 6, lines 46-53, and col. 9, lines 5-14], local

computer and second local device being coupled through

communication mechanism utilized by first local device

[fig. 1 and 2].

Deitz does not explicitly teach:

- remote storage center.

However, Deitz does disclose capability of:

- a method and apparatus for providing a RAID controller

having transparent failover and failback [abstract, col. 1,

lines 15-11] comprising:

- a data networking transmission connectivity among plurality

of host computer, controller, plurality of data storage, etc...

[fig. 1 and 2, col. 4, lines 60 through col. 5, lines 32];

    - plurality of data storage connected to host computers via

    a networking environment [fig. 1 and 2, col. 3, lines 25-

    28].

    In addition, Jones explicitly teaches:

    - a method and system for providing fault tolerant in a

    networking client/server computing environment [abstract,

    fig. 1, col. 1, lines 1-13];

comprising:

    - **LAN and WAN client/server communications [col. 1, lines**

    25-37].

    - **a failure tolerant among multiple controllers, data**

    storages and processors (i.e., failover).

    Therefore, it would have been obvious to a person having

ordinary skill in the art at the time the invention was made

first, to realize the Deitz's **plurality of data storage**

connected to host computers via a networking environment as

being the remote storage center as claimed by Applicant. This is

because Deitz does perform the failover capability within the

computer system to ensuring data can be accessed locally or remotely to and from data storage devices (i.e., data storage center) via active and passive port switching functionality; second, one would modify the Deitz to explicitly including the Jones' **a failure tolerant among multiple controllers, data storages and processors** via client/servers LAN and WAN environment in supporting the computer system failover or fault tolerant capability.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the data computing system with plurality of communication nodes, host computers, servers, data storage with a mechanism to enhance data access to data storage locally or remotely. By utilizing this approach, a data processing computer can be realized in high performance throughput with a high reliability and flexibility data transmission environment.

As per claims 2-4:

Deitz substantially teaches the invention. Deitz teaches:

- a failover system [abstract, col. 1, lines 1-11].

comprising:

- additional local devices to support a 2N failover

configuration of storage port, wherein "N" represents any

integer value [fig. 1 & 2, col. 5, lines 12-17 and col. 5,

lines 25-32];

- communication mechanism comprising [fig. 1 &2];

- a network [fig. 1 & 2].

- first local device comprises a network interface [col. 5,

lines 5-7 and col. 5, lines 18-25] that communicates on

network using a network address [col. 3, lines 10-12 and

col. 6, lines 6-12].

- second local device comprises a network interface [col.

5, lines 5-7 and col. 5, lines 18-25] that communicates on

network after a failover condition [col. 3, lines 10-17 and

col. 6, lines 46-53, and col. 9, lines 5-14] using a

network address [col. 3, lines 10-12 and col. 6, lines 6-

12] of first local device.

- a network files system such that local computer exports

local file system using network address to conduct file

system operation [col. 5, lines 58 through col. 6, lines

17].

As per claim 5:

Deitz substantially teaches the invention. Deitz teaches:

- a failover system [abstract, col. 1, lines 1-11].

comprising:

- active storage port further comprises a network interface
[fig. 1 & 2, col. 5, lines 5-7 and col. 5, lines 18-25] to
couple active storage port to passive storage port [fig. 1
& 2] and processes to monitor the health of active storage
port[col. 3, lines 12-14 and col. 6, lines 63 through col.
7, lines 7, and col. 8, lines 14-27];

- passive storage port further comprises a network
interface [fig. 1 & 2, col. 5, lines 5-7 and col. 5, lines
18-25] to couple passive storage port to active storage
port [fig. 1 & 2] and processes to query active storage
port to obtain a status of the health of active storage
port[col. 3, lines 12-14 and col. 6, lines 63 through col.
7, lines 7, and col. 8, lines 14-27];

Deitz does not explicitly teach:
- a pre-determined threshold.

However, Deitz does disclose capability of:
- a method and apparatus for providing a RAID controller
having transparent failover and failback [abstract, col. 1,
lines 15-11]

  comprising:

- a data networking transmission connectivity among plurality

of host computer, controller, plurality of data storage, etc...

[fig. 1 and 2, col. 4, lines 60 through col. 5, lines 32];

- a polling or pinging scheme [col. 6, lines 63 through

col. 7, lines 7] and reset and resume function [col. 9,

lines 1-14].

Therefore, it would have been obvious to a person having

ordinary skill in the art at the time the invention was made to

realize the Deitz's **a polling or pinging scheme, reset and**

resume function as being the pre-determined threshold as claimed

by Applicant. This is because Deitz applied these function to

performing the ports switching from active to passive modes.

Therefore, in order to achieving this means, Deitz has to have a

threshold or certain signaling level to allowing the port to

switch from active to passive via failover function.

As per claims 6-7:

Deitz substantially teaches the invention. Deitz teaches:

- a failover system [abstract, col. 1, lines 1-11].

comprising:

- active storage port comprise a data cache, for storing

file, and a directory cache for storing file system

information on file (i.e., RAID) [fig. 1 & 2, col. 3, lines

25-30 and col. 5, lines 48-57];

- first and second local devices comprise network interface

[col. 5, lines 5-7 and col. 5, lines 18-25] for

communicating to storage device [fig. 1 &2];

As per claims 8-13:

Due to the similarity of claims 8-13 to claims 1-7 except

for an apparatus comprising first local and second local device

for operating active and passive storage ports, respectively, a

network, etc… instead the failover system comprising first local

and second local device for operating active and passive storage

ports, respectively, a network, etc…; therefore, these claims

are also rejected under the same rationale applied against

claims 1-7. **In addition, all of the limitations have been noted

in the rejection as per claims 1-7.**

As per claims 14-20:

Due to the similarity of claims 14-20 to claims 1-7 except

for a method for configuring a storage system for failover

operation comprising first local and second local device step

for operating active and passive storage ports, respectively, a

network step, etc… instead the failover system comprising first

local and second local device for operating active and passive

storage ports, respectively, a network, etc…; therefore, these

claims are also rejected under the same rationale applied

against claims 1-7. **In addition, all of the limitations have**

been noted in the rejection as per claims 1-7.

Conclusion

5.   The prior art made of record and not relied upon is

considered pertinent to applicant's disclosure.

6.   A shortened statutory period for response to this action is

set to expired THREE (3) months, ZERO days from the date of this

letter.   Failure to respond within the period for response will

cause the application to be abandoned. 35 U.S.C. 133.

7.   Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Dieu-Minh
Le whose telephone number is (703) 305-9408.   The examiner can
normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM.
The examiner can also be reached on alternate Fridays.

      If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Robert Beausoliel, can
be reached on (703)305-9713.   The fax phone number for this
Group is (703)746-7240.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703)872-9306, (for formal communications

intended for entry)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2114

DML
12/29/03